

Philadelphus serpyllifolius is, of course, closely related to *P. microphyllus* but differs strikingly because of the tomentum of the leaves and the extremely short styles. The collections from Kendall County are much less pubescent than is the rest of the material.

4. *PHILADELPHUS PURPUSII* Brandege, Univ. Calif. Publ. Bot. 4: 270. 1912.

A low spreading shrub 1–2 m. tall; young branches brownish, densely strigose-pubescent, older bark grayish, winter buds quite obviously not enclosed in the leaf bases, petioles 1–4 mm. long, blades entire, ovate-lanceolate to lanceolate, usually slightly mucronate, 20–35 mm. long, 3-nerved, pubescence of both surfaces grayish-green, almost equally strigose with short thick hairs; flowers single at the ends of short branches, the pedicels 3–6 mm. long; calyces grayish-strigose, the tube 3–4 mm. long, the lobes 4–6 mm. long, acute; petals obovate to oval, 10–15 mm. long, rounded, scarcely emarginate; stamens 40–50, filaments distinct; styles 2–3 mm. long, united about one-half to four-fifths their length, basal portion and surrounding ovary grayish pilose; stigmas free, 2–3 mm. long.

Type. Minas de San Rafael, San Luis Potosi, Mexico, *Purpus* 5368.

Known only from two collections from the type locality, *Purpus* 5368 (C, G, NY) and *Purpus* 4910 (G, US).

Philadelphus Purpusii is most easily distinguished because of the pilosity of the styles and upper ovary, but the grayish-green strigose leaves, large petals, and exposed buds are all features that help to make it the distinctive species that it is.

University of Washington, Seattle,
March, 1942.

A NEW SPECIES OF PHACELIA FROM SALINE VALLEY, CALIFORNIA

LINCOLN CONSTANCE

Phacelia amabilis sp. nov. Herba annua vel biennis, omnino glanduloso-puberula et hispida praecipue in calycibus inflorescentibusque, circa 1 m. alta; caulis crassus ramosus; folia petiolata oblonga oblongo-ovatae, 8–15 cm. longa, 3–5 cm. lata, pinnatifida, lobis oblongis dentatis, summa reducta minus alte divisa; inflorescentia corymbosa, cymis 5–12 cm. longis in fructu erectis; pedicelli in fructu 2–3 mm. longi; calycis lobae anguste lanceolatae, 3–5 mm. longae, 1–2 mm. latae, corolla plus quam dimidio breviores, capsulam leviter excedentes; corolla late campanulata, 7–8 mm. longa, 8–12 mm. lata, alba, lobis integris; appendiculae supra tubae basin minus quam 1 mm. insertae, parte libera lata; stamina exserta; stylus exsertus, pallido-lilacinus;

capsula ovoidea, 3-4 mm. lata; semina plerumque 2 vel 4, 3-4 mm. longa, tenuissima pallidissima, non corrugata, superfacie ventrali jugo saliente utrinque excavata.

Annual or biennial, about 1 m. high; stem stout, branching; herbage glandular-puberulent throughout and hispid, especially on the calyces and in the inflorescence; leaves petiolate, oblong to oblong-ovate, 8-15 cm. long, 3-5 cm. broad, pinnatifid, the lobes oblong, dentate, the uppermost leaves reduced and less deeply divided; inflorescence corymbose, the cymes 5-12 cm. long and erect in fruit; pedicels 2-3 mm. long in fruit; calyx lobes narrow lanceolate, 3-5 mm. long, 1-2 mm. broad, less than one-half as long as the corolla, slightly exceeding the capsule; corolla broadly campanulate, 7-8 mm. long, 8-12 mm. broad, white, the lobes entire; appendages attached a little less than 1 mm. above the base of the tube, the free portion broad; stamens and style exerted 5 mm. or more, the latter pale lavender; capsule ovoid, 3-4 mm. long, 2-3 mm. broad; seeds usually 2 or 4, 3-4 mm. long, very thin and pale, not corrugated, the ventral surface excavated on each side of a salient ridge.

Type. "In full bloom along creek, Hunter Creek, altitude 1800 feet, Saline Valley, Inyo County, California," April 21, 1942, *Annie M. Alexander* and *Louise Kellogg 2681* (Herbarium of the University of California no. 671871). *Phacelia amabilis* was first thought to be an albino form of *P. crenulata* with which it was growing.

In his excellent, "Revision of the *Phacelia crenulata* group for North America" (Bull. Torrey Bot. Club 64: 81-96, 133-144. 1937), Voss has provided the most complete modern treatment yet available for any portion of this interesting and "difficult" genus. Although interspecific differences are small in this group, most of the entities accorded specific rank by him appear to be rather sharply distinguished from one another. The present species, by possession of a broadly campanulate corolla, exerted stamens and ventrally excavated but uncorrugated seeds would appear to be most closely related to *P. congesta* Hook., of Texas, New Mexico, southeastern Arizona and northern Mexico. Besides the wide discontinuity in geographical range, *P. amabilis* differs from *P. congesta*—as indicated on the accompanying plate—in its shorter calyx, larger and differently proportioned corolla, more exerted stamens and style, and its larger, paler, thinner and more broadly margined seeds.

For the past several years, the Misses Alexander and Kellogg have collected extensively in the relatively inaccessible desert mountains of the southwestern United States. The Herbarium of the University of California has been enriched by receiving their nearly 3500 numbers, as well as many valuable duplicates, which have been distributed to other leading herbaria.

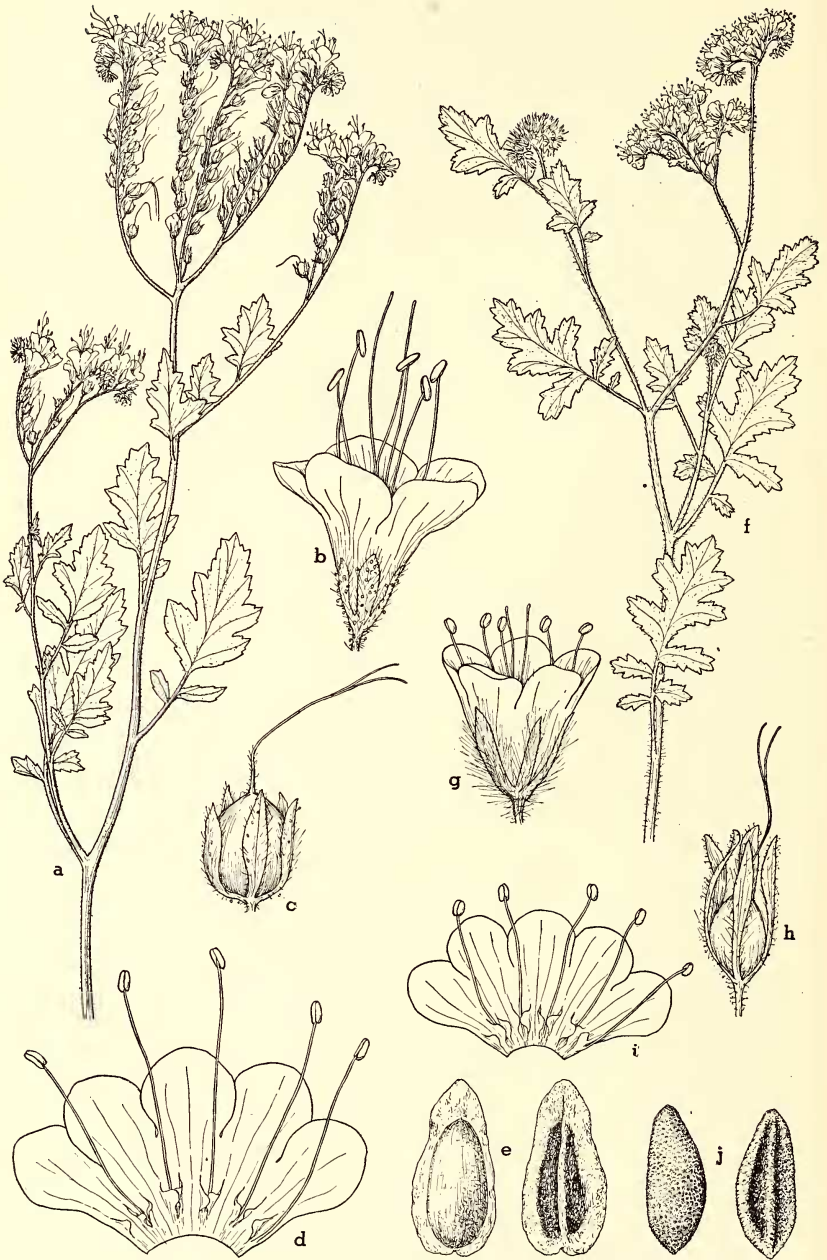


PLATE 3. PHACELIA. Figs. a-e, *P. amabilis*: a, habit; b, flower; c, fruiting calyx and capsule; d, expanded corolla; e, seeds. Figs. f-j, *P. congesta* var. *rupestris*: f, habit; g, flower; h, fruiting calyx and capsule; i, expanded corolla; j, seeds. (Habit drawings $\times \frac{1}{2}$; flowers and capsules, $\times 3$; seeds, $\times 7$.)

Phacelia amabilis is but one of the rare or seldom-collected species which has been secured as a result of their indefatigable efforts.

The writer would ordinarily have preferred to delay publication of this species until more material is available, but in view of the curtailment of field work in the foreseeable future, it seemed advisable to describe it at this time.

Department of Botany,
University of California, Berkeley,
November, 1942.

GILIA MULTIFLORA NUTT. AND ITS NEAREST RELATIVES

THOMAS H. KEARNEY AND ROBERT H. PEBBLES

Gilia multiflora Nutt., a widely distributed species of New Mexico and Arizona, is extremely variable, but is distinguished from its nearest relatives by having the corolla tube nearly always two to three times the length of the lobes, and rarely less than one and a half times the length of the calyx. Very similar to *G. multiflora* in habit, foliage, and pubescence is *G. polyantha* Rydb. which differs, however, in having a shorter corolla tube, this approximately equal in length to the lobes and the calyx.

Typical *G. polyantha* is known apparently only from southwestern Colorado. *Gilia brachysiphon* Woot. and Standl., of southwestern New Mexico, would seem to be specifically distinct from *G. polyantha* were it not for the occurrence in north-central Arizona of a form that is intermediate in several characters. For this reason, it seems best to treat *G. brachysiphon* and the hitherto undescribed Arizona plant as varieties of *G. polyantha*. So far as present information goes, the three forms of this species are rather widely separated geographically.

Another more distantly related member of this small group of perennial plants with filaments normally conspicuously exerted and declined is *G. Harvardi* A. Gray, an apparently rare species of southwestern Texas. The corolla is more pronouncedly zygomorphic, especially in respect to the closely grouped and parallel-declined stamens, than in *G. multiflora* and *G. polyantha*, and for this reason Brand (in Engler, Pflanzenr. 4²⁵⁰: 172. 1907) restored this species to the genus *Loeselia*, where it was placed originally by Asa Gray. *Gilia multiflora* and *G. polyantha*, however, also show a tendency to zygomorphy and the writers concur in Gray's final conclusion that *G. Harvardi* and *G. multiflora* are congeners.

Gilia Macombii Torr., although evidently related to *G. multiflora*, is not considered here because the stamens are not exerted from the corolla tube, or project only about the length of the anthers.